

PANEL 6 – MTS USER NEEDS

Moderator: Jeff High, U.S. Coast Guard

I serve as Chair of the Steering Group of the Interagency Committee on the Marine Transportation System and it is an honor to preside over the final panel of this 3-day event. We have had some excellent presentations throughout the conference and some very interesting points have been raised.

This afternoon's user needs panel is comprised of individuals representing different elements of and perspectives on the MTS. I will begin by introducing the speakers, who will each offer a short presentation. We will then open it up for Q&A among the panelists and with the audience.

Leading off will be Glenn Ashe, who is the Director of Government Operations for the American Bureau of Shipping and heads their Government Operations Office here in Alexandria. His professional career includes positions with the U.S. Navy, U.S. Coast Guard, Military Sealift Command, and private naval architecture design firms. He came to the American Bureau of Shipping in 1990 as the Director of Engineering and then later as Director of Business Development. He has been the Director of Government Operations since 1995. He is a graduate of Georgia Tech and MIT, with specialties in both Naval Architecture and Marine Engineering, and Ocean Engineering.

Ed Mortimer is the Senior Manager of the Transportation Infrastructure Department at the United States Chamber of Commerce, where he is responsible for transportation policy. Before joining the Chamber of Commerce, Ed was Director of Government Relations for the Transportation Intermediaries Association (TIA). Ed also served as a legislative representative for the American Road and Transportation Builders Association, and he started his professional career at the Congressional Research Service. Ed received his B.A. in Political Science from The American University.

Barry Holliday is the Chief of the Navigation and Operations Branch in the Operations Division in the headquarters of the U.S. Corps of Engineers. Barry has had a number of jobs in the field having to do with dredging. He started in Vicksburg, Mississippi and went through Wilmington before he came to headquarters in 1991. Barry is also a member of a number of committees and commissions and again, a lot of expertise in dredging. He is the co-chair of the National Dredging Team and of interest to me in particular is he is a member of our Interagency Committee on MTS and the Chair of our Infrastructure and Competitiveness Subcommittee. He has a B.S. degree in Geology from William and Mary, and he has an M.S. degree in Oceanography from Old Dominion University. He also attended some courses in Texas A&M for advanced graduate studies.

Peter Lehman is the Director of Planning and Business Development at South Carolina State Ports Authority. He has been past Executive Director of the South Carolina World Trade Center and has held some prestigious positions in the Department of Commerce in the State of New Jersey. He is an attorney and licensed to practice in New Jersey, South Carolina, the District of Columbia and in the federal courts, including the Supreme Court. He serves on numerous boards

and committees and has won numerous awards. He has also served on the United States Department of Commerce's Industry Sector Advisory Committee. Peter is a graduate of the New England School of Law, Stetson University, and in addition, has certificates from the University of Brussels, the Hague Academy of International Law and several others.

Leo Penne is the Program Director for the intermodal and industry activities with the American Association of State Highway and Transportation Officials (AASHTO). He has held a number of positions both inside and outside the government in the State of Nevada, the U.S. Department of Commerce, the National League of Cities, and as President of his own corporation. He is the principal author of a major work, *The Economics of Amenities – Community Futures and Quality of Life – A Policy Guide to Urban Economic Development*, and a number of other publications. Leo holds degrees in Political Science from Seattle University and University of Washington.

Captain Mike Watson is the President of the American Pilots Association. He graduated from the United States Merchant Marine Academy with a bachelor's degree in Marine Transportation, was commissioned as an Ensign in the U.S. Naval Reserve, and went off to drive military sealift ships in Vietnam. He worked for Farrell Lines and then joined the Maryland Pilots in 1970, where he had a number of positions in the Pilots Association. He has moved up to be the President of the American Pilots Association. He is a member of many professional and civic committees, and like a number of the other panelists, is also a member of the MTS National Advisory Committee (MTSNAC).

Chuck Carroll is an attorney and the Executive Director and General Counsel for the National Association of Waterfront Employers. He is a retired member of the U.S. Marine Corps. He also worked with the Associated General Contractors and has held a number of positions as a counselor on various Senate staffs. He has a B.S. from St. Joseph's University and a J.D. from George Mason University.

Jonathan Benner is a Partner with the Washington office of Trout & Sanders. He heads the firm's maritime practice group. Prior to entering private practice in 1984, he was a trial and appellate attorney for the United States government. During his last three years there, he was the General Counsel for the U.S. Federal Maritime Commission. Jonathan also represents INTERTANKO (International Association of Independent Tanker Owners) and was the lead counsel when INTERTANKO v. the State of Washington litigation went before the Supreme Court. They won a unanimous ruling. He is a graduate of Georgetown University of Law Center.

Ed Welch is the Legislative Director for the Passenger Vessel Association. He also assists in other maritime organizations, including the Union of Greek Ship Owners, the Intracoastal Waterway Association and the Dare County, North Carolina Beach Nourishment Committee. So, he is out there doing lots of good things on the water. Ed, like others on this panel, has also worked on Capitol Hill. For 12 years, he was the Chief Counsel and Staff Director for the Committee on Merchant Marine and Fisheries in the U.S. House of Representatives. Ed is an attorney, with degrees from the University of North Carolina.

Glen Ashe, American Bureau of Shipping

My focus on this panel has to do with marine safety and environmental stewardship. From the ABS point of view, I will talk about where we see the R&T needs are with respect to marine safety and environmental stewardship.

There are really two main drivers – social accountability and good business. As far as social accountability is concerned for safety and environmental stewardship, it is quickly becoming a world of zero tolerance. This means we have to think ahead as far as research and technology are concerned. Besides that, it is good business. If a person in the business world doesn't understand that concept, he has some hard lessons to learn in the very near future. You can ask the owners of the *Exxon Valdez* or the *Erica* or any of a number of other incidents that have happened and have caused people to see what impact these areas have on business.

What is the world of marine safety and environmental stewardship? It is really a “safety net”. The Commandant of the Coast Guard a few years ago coined this idea and I think it is a good one. It begins with the owner – the guy that is contributing to the gross domestic product. It is his responsibility to ensure that he is watching out for safety and environmental stewardship. Supporting him is a whole group of people, from those who are directly accountable to him through contractual relationships for providing for the safety and environmental stewardship of the platform he is operating or the cargo he is toting, all the way down through those of us who exist in this world purely to help people focus specifically in those areas. This includes classification societies and regulatory bodies like the U.S. Coast Guard.

The whole idea of marine safety and environmental stewardship, from our point of view, hinges on establishing a system whereby one can measure the acceptability of his asset -- the ship or the port or whatever – against an established set of acceptable standards that society has looked at and said yes, if an owner does that, he is living up to the responsibility that we think is the baseline for him to fulfill his obligation towards providing for safety and environmental stewardship. These things all hinge on standards. You need some sort of report card in order to measure yourself.

Standards have to be current, rational and dynamic. If they are not, they are not doing the job. Those are obvious statements. This is where research and technology comes into this area because you need research and technology to be ongoing, continuous to make sure that your report card, your checklist, what you're measuring yourself against, makes sense and lives up to your social obligation.

There are various drivers for standards development and implementation, of which research and technology is one of the primary ones. The others include the social and economic costs, the experience that you have in operating your asset, and also common sense. There are certain things you can't ask someone to do.

We at ABS, and I'm sure that I could get a hardy endorsement from our friends at the Coast Guard, have a clear focus. It is grounded in the present, and it is looking toward the future. The

present for ABS is to be on the leading edge of the research and technology bubble, making sure that we are providing the industry with the tools they need to do this kind of measurement.

The look to the future is determining where we go to make this as cost-effective and technically effective as possible. That is where we are looking for the research and technology. Much of it is focused on risk-informed or risk-based methods because these are the things that allow you to identify where you get the biggest bang for your buck. There are a number of key technology thrust areas that we are interested in looking at right now.

In ship structures and loads, we are looking at making the best use of the technology that we have available and looking to the future. The probabilistic-based methods are already being applied in the offshore world in those big assets that they have out there in 5,000 – 10,000 feet of water that you can't drag back in to fix all the time or you can't put up in a drydock.

Simulation technology is another way of doing what you have to do on these assets in a virtual world, and still accomplishing what you need to have accomplished. In offshore technology, all these things can be applied.

One thing that we have begun to focus on is the human element technology. For so long we focused on the platform, which is accountable for about 25% of the accidents or the oil spills or whatever, and in the past we have not focused a lot on this very important area because we haven't had the techniques to do it. Now we are getting them. The same thing can be applied to marine engineering systems.

Finally, it is all tied in to risk and reliability. This is where we see the safety and environmental stewardship acceptability determination or baseline accountability assessment going in the future because these kinds of tools are the things that allow us to do it in a comprehensive, yet in a complete manner.

If I were going to encourage anybody to invest R&T time as far as marine safety and environmental stewardship are concerned, it would be in the risk-based and risk-informed methods development and how they apply to measuring the acceptability of the platforms, the ports and all the supporting things that we have out there in the marine transportation system.

Thank you.

Ed Mortimer, U.S. Chamber of Commerce

The U.S. Chamber of Commerce and the business community are vitally concerned about the future of our marine transportation system. We have heard the data from the Department of Transportation that by 2015, the amount of freight coming into this country is going to double. We currently have a capacity crisis in our nation's ports and inland waterways. It is something we need to address. This is a very high priority issue for the Chamber and we are looking

forward to doing it. We know that the future of our economic growth in this country is based on our competitiveness with the rest of the world. That means that our port and waterway system is competing against those of Singapore, Hong Kong and Malaysia. We have great needs there to get the ports dredged, deep enough, improve the inter-connectiveness of our ports with our inland waterway system, and the time is now. We cannot delay any longer. We have to make the changes now and do it.

We want to be a part of the solution – not a part of the problem. That is one reason the U.S. Chamber has joined many of my other colleagues on this panel in the Marine Transportation System National Advisory Council. This council was formed by then Secretary Rodney Slater and the mantle has been carried very ably by Secretary Mineta and they have asked all the stakeholders to get together to see how we can work to create an MTS system that is integrated, that is seamless, and that needed investment funds are out there. The new issue -- we always considered it but it is even more important now after September 11th -- is how we can make it a secure system. We look forward to continuing to work with that group.

We have all heard the references to a SEA-21 and we need to get to the point of what is SEA-21? We have water reauthorization next year and that is vitally important that the industry is able to come together and we can have a solid proposal that we can take up to Capitol Hill together. We see that as one of the only ways that we are going to get really something positive done. We look forward to continuing to work with the MTS to do that.

The Chamber is also involved in research in this area. Back in May 2001, the National Chamber Foundation undertook a study looking at 16 port areas around the country. The study is going to look at the current infrastructure that these ports have today, the current amount of freight they are handling today, and what we are going to do in 2015 when that amount of freight doubles. We have a blue ribbon panel led by former Secretary of Transportation Jim Burnley. Many of the folks in this room have participated in that process one way or another. We look forward to having the final results of that study come out early next year as water reauthorization is debated.

Another thing the Chamber has taken on -- something we are very excited about -- is a new coalition of the general business community, state and local governments, transportation users and providers. It is called Americans for Transportation Mobility. No pun intended, but it is referred to as ATM – show us the money. Money is very important because right now, as many of you know, we do not spend all the money that goes into the transportation trust funds. This is particularly the case in the harbor maintenance and inland waterways trust fund. We are pressing very hard on Congress to make sure all these trust funds – all the money that we all pay into the transportation trust funds -- is used for its intended purpose.

Secondly, the money is great, but money alone isn't going to solve our transportation problems. There is the horror story out there that it has taken San Francisco 25 years to get a runway extension. There have been many port and waterway projects that have taken endless time. We have heard the horror stories about locks and dams that are 75-100 years old. We need to streamline the process. It takes too long for projects to get done in this country and a lot of it is problems at the federal government. We have 30 different agencies that get involved in the

whole environmental process and instead of using one core set of environmental impact statements, they each do their own. We need to find a way to streamline this process.

We have organized a broad coalition, with over 300 national organizations. I just came from a press conference earlier today on Capitol Hill where we announced that the Laborers International Union and the International Union of Operating Engineers are joining us in this cause. We're fighting right now for the economic stimulus package. As many of you know, there was some transportation funding that the Senate was looking at putting into the economic stimulus package, but for political reasons, Senator Byrd pulled that language out. The Senate is unable to move a bill, but they are in a House/Senate summit meeting of sorts to try to come up with an economic stimulus package. Tom Donohue, our CEO and the leaders of the labor unions and other leaders in our coalition are going to be meeting with the House and Senate leadership and the White House to urge that any stimulus package include transportation infrastructure. There is nothing more that can improve our economy than to provide a better infrastructure system so we can move our freight and improve the mobility of our people.

I want to say we are committed in this effort. I join with many of the partners on the panel toward working together to have the best transportation system in the world.

Thank you.

Barry Holliday, U.S. Army Corps of Engineers

I could talk about the Corps' involvement in the reality of doubling of trade in the next 20 years. I could talk about the Corps' involvement in intermodal connectivity. I could talk about the Corps' involvement in capacity issues. I could talk about the Corps' involvement in the MTS in general. However, what I would really like to talk about this afternoon is some of the realities that we heard about the past couple of days in our working group sessions on the regional sediment management issues. The MTS is right in the midst of that dialogue. In fact, the MTS is an integral part of the issues surrounding the environment and the impacts on that environment of developing the viable waterborne transportation system for which we are responsible.

There are a lot of sediment issues associated with the MTS -- issues which have evolved into a very interesting dialogue and some very interesting bedfellows. We are now partnering with folks that we used to consider the enemy and folks that, quite frankly, we wouldn't even listen to 10-15 years ago and that is good. The reality is that there are a lot of expectations on the part of all of us in the MTS to demonstrate that we, in fact, will balance the response to economic growth with the sustainable environment. That is quite a challenge because at the same time that balance is expected, nobody seems to be raising our budget authority. With the same or less funds, they want us to do more, and they are perfectly willing for us to do that.

This is clearly a challenge, particularly when you start looking at the demands on the Corps' program in dredging. Dredge material is now a hot item. Everybody thinks it is a resource -- in fact, it is. In fact, everybody wants a part of it. But, it comes with a substantial price tag. It also

comes with a substantial knowledge base that we don't yet have. What do I mean by that? To properly respond to some of the expectations from an environmental sustainable position requires us to understand some long-term, morphological changes, and requires us to understand some unique interactions between modifications to existing stream banks, and modifications to existing shorelines with the expectation of some increased biological activity. While the words are easy to say, the actions are quite challenging. In many cases, they are not simple at all.

It is clear that we have a research and technology demand out there that is going to focus in the long-term on morphological modeling in scales that we haven't looked at in the past. We are going to have to create, at the same time, some companion environmental efforts and response models to go with those morphological models in the longer term scales.

We need to develop management solutions that incorporate both the economic and the environmental issues that are confronting us. Probably one of the most troubling portions of our process right now is that when you ask the experts and those with the expertise to stand up, there is no one there. Quite frankly, we are talking about bio-engineers that haven't even been born yet. We're talking about folks out there that have an engineering degree who like bugs and bunnies at the same time. While there are many out there that purport to be in that category, quite frankly, it is going to be a very challenging effort for us to identify the scope of expertise that we need to apply the technologies that we are going to require for these future models.

Another reality check that is clearly out there is the fact that there is no single agency out there that can move forward on its own anymore, and shouldn't. It is just not good government. The reality is that we all need to understand better how to leverage each respective agency's efforts, whether they be research or some of the applications, and figure out how we can improve on each other's future efforts.

When you start looking at broad regional applications and watershed applications, it is clear that we're not talking about 1, 2 or 3 agencies. We are talking about 10, 12 or 15 agencies. In addition, the local communities, the states and the environmental action groups should be an integral part of that. On our part, it requires a whole new demand for public education and stakeholder education. That, in itself, requires some R&D because it is one thing for us to stand up and talk about such things as ton-miles and commodity movements, but it is another thing for people to relate to – what does that mean in my pocketbook? What does that mean to the cost of corn flakes? Or, what does that mean to the future of some of our industries out there? It is clear that we have to develop some new technologies and new abilities to communicate what the MTS means to all those people.

We need to start building some new coalitions that we've never built before, not unlike the discussions of bringing in the environmental action groups. However, none of us own this entire problem and we really need to understand what it is when we talk about watershed management. Watershed management is a phenomenally large concept, but each integral part of it can break down the other parts if they are not properly addressed.

We also need to look at the life cycle costs and optimization of those investments in the future with the challenging budgets that we have. That is something else that needs some research and

technology, quite frankly. We don't, right now, really have a good handle on describing the economic value nor the ecological value of some of the things as far as changing our system in response to improving species diversity or improving the pristine environments that are now expected of us in some areas that we have modified in the past.

I can tell you that the Corps is going to ensure that there is a viable federal infrastructure to support the marine transportation system of the future. I can tell you that Congress has demonstrated that it thinks our deepwater ports are of the highest priority. They have demonstrated that year after year. But, what I am concerned about is that we have an inland waterway structure that is old, is not responsive to the expected change, or even today's existing traffic, and it is something that we really need to work on in our dialogue, both to the Congress as well as to the public.

I really appreciate the opportunity to participate in this MTS and I would like to personally thank Bruce Parker for the outstanding effort and I would like to just give him a hand.

Peter Lehman, South Carolina State Ports Authority and AAPA

I think Ed framed it best when he talked about the MTS as a component of the overall transportation system. The AAPA is interested in and is committed to creating the most efficient transportation system in the world and I would like to offer some talking points that lay out what that entails.

The first one deals with capacity, congestion and security, particularly since September 11th. As you can imagine, this dominates the agenda of the port community. We appreciate the degree to which this program and the topics were adjusted in light of recent events to include the new emphasis on homeland security.

Although ports are a key link in the intermodal transportation chain, we are the forgotten step-child when it comes to the transportation and planning funding process. That is no less true for research. There is no research program for maritime and there should be. We hope that future funding programs help. Ed talked about SEA-21 and we hope that addresses the research needs as well as other needs.

We also must think in terms of the transportation system as a whole, no matter how efficient our terminals are. We realize that we could have bottlenecks on the land and on the waterside and back up the whole system. I think John Vickerman has a very famous slide where it has different gauges of pipes and the system is only as efficient as the smallest pipe. Many of you have seen that and it is very true.

One problem, as identified in the MTS report, is the divided responsibility for the MTS with involvement of many federal, state, and local agencies with different priorities, requirement and procedures. That is why conferences like this are so important.

The increased emphasis on security is an added factor that can significantly affect efficiency and productivity. When members of Congress lament the fact that only 1-2% of containers entering the country are opened and inspected, we have to wonder if they really understand the impact of significantly increasing this number, and if you increase that number at the same time that our trade flow is increased, you're going to have some issues.

One year ago, security was not high on the radar screen. The AAPA undertook a research needs study in May 2000. The issues of port access and intermodal connections and intermodal transportation planning/system capacity analysis were identified as the top priorities for U.S. ports. Economic impact of port activities came in a close third. This reflects the fact that public awareness of the importance of ports and maritime commerce is a continuing and important challenge on many fronts. Whether we are trying to advocate for funding for navigational channel improvements, or explain to the general public why restricting truck traffic during peak daytime hours creates other problems.

Other top issues of concern for U.S. ports were environmental mitigation, improvement of navigation systems and hydrographic services, and terminal productivity measures. Last November, the AAPA Planning and Research Committee discussed the results of a research needs survey tied to identifying research priorities. Ideas included innovative financing for infrastructure projects, technologies to increase terminal productivity, developing coastwise trade, technologies to increase terminal productivity, treatment of ballast water, clean air technologies, economic impact of port activities, and the importance of the human factor on the impact of long-shore practices on terminal operations and capacity. As you can see, this conference hit many of those key topics, as have some of my fellow panelists.

If we asked AAPA members the same questions today, I would not be surprised if the top issue of concern was how to enhance seaport security without impeding the flow of commerce. Certainly, that is worth funding and is likely to be available in the short-term, and it is a big issue for us.

The world has shifted beneath our feet, but we will do our best to keep on track and continue to work toward the MTS goal of creating by 2020 the world's most advanced, safe, secure, efficient, effective, accessible, globally competitive, dynamic and environmentally responsible system for moving goods and people.

Thank you.

Leo Penne, American Association of State Highway and Transportation Officials

I don't want to go off on a tangent, but until Jeff mentioned it in his introduction, it had not occurred to me that there was a connection between the book I wrote on urban amenities and economic development and this general subject, the marine transportation system. In that book,

it turned out that one of the most prominent assets of cities was waterfront. The emphasis, of course, in the book is on urban amenities and economic development not on port development, but on the use of waterfronts for residential, recreation, leisure activity and so on.

Today, of course, what we are now confronting in many cities – of which many are historically port cities -- is the competition between the traditional economy uses, port and freight transportation, and other industrial uses, and the amenity uses of those waterfronts. It may well be that one of the items for research is in the area of community economic development and transportation including assessments of cost benefits related to the alternative uses of the water resources.

To quote Woody Allen – “Being there is 85% of everything”. I think that has now been inflated. It is commonly said that it is 90% of everything. I think that AASHTO being here is probably 85% or 90% of the point that I want to make. Historically, AASHTO has had a lower case 10-pitch ‘t’ for transportation and an upper case 36-pitch ‘H’ for highways. Most state departments of transportation are historically highway departments, and in most cases, they remain predominantly highway departments. AASHTO is here today because we think this is an important enterprise and because we think it is important to transportation -- not necessarily or directly important to state departments of transportation, but important to transportation. As the departments of the states are looked to as the leaders, the organizers, the facilitators, the coordinators, even in areas where they do not necessarily have a large part of the institutional responsibility, we believe the marine transportation system is extremely important.

I can associate myself with remarks made by previous speakers as they relate to the size of freight movement through the MTS, the likely increases in that size over time, the economic benefits and not only economic benefits to the ports of entry, but the economic benefits throughout the nation. For those reasons, AASHTO members think this is extremely important and that’s why we are here.

When trying to decide what I was going to be say at a R&D conference as it relates to this subject, I thought back to my graduate school days when a new structure of scientific revolutions was first in vogue -- the notion of ordinary science and revolutionary science. For AASHTO, this subject is probably not ordinary science. We are not doing the problem-solving on things like dredging, environmental protection, development of vessels and so on. But, for AASHTO, there has been a revolutionary or perhaps we are in the process of a revolutionary transition to a different view of the whole subject, which is to say that if you’re in the highway business, you’re also in the port business. It is self-evident that the volume of traffic on the highways is increased significantly by the volume of traffic through the ports, and vice versa. You cannot be in the highway business and you can’t be in the rail business without being in the transportation business, without being in the port and water transportation business. Thus, we are talking about basically one subject here – not several subjects.

Earlier this week, I was at the meeting of the AASHTO Water Transportation Committee in Gulfport/Biloxi, where we had about 15 states and their chief water transportation people. It was striking to me how many of them were describing either new institutional arrangements or new initiatives being undertaken between their departments and private industry that could be

described as intermodal. Clear indications from places like obvious and well-known ones, Florida, Washington, but other places perhaps not quite as well-known in this area like Mississippi and Pennsylvania. The state DOTs are taking a much more comprehensive and inclusive view of their responsibilities in the wider world of transportation. That wider world included water transportation, ports, inland waterways, and intracoastal waterways and the entire system.

Two items I would mention that are illustrative of that and I think extremely important, and areas that are going to require transportation research if not technology development, and that is connectors and corridors. It is now commonplace, certainly in the water transportation community, but more and more commonplace in the highway transportation community to understand that the last mile is a critical mile and that connectors not only to ports but to other hubs of freight activity are important and that we must figure out ways to get them done so that we don't have the choke points five feet outside of the gate.

The other area that I think captures it, perhaps even more broadly, is corridors. If you're not in the general transportation world, you would be surprised and even if you are, it is surprising how many regions are approaching the world of transportation planning, project development from a corridors perspective. We were down on the Gulf Coast and we heard from several states and from the lead consultants on an I-10 study – I-10 being the highway from Florida to California. In that study, it is not simply a highway study. It incorporates the relationships of the ports, the traffic generated out of the ports, and the possibilities for moving traffic off the highways and into the Gulf intercoastal waterway. The same is true in the mid-Atlantic on I-95 and on I-5 in Washington and Oregon.

AASHTO, in trying to engage with the congestion capacity problem in their traditional area of responsibilities – the highways – are being pushed into being intermodal and in being intermodal, they are incorporating the marine transportation system into their thinking about the future of the nation's transportation system.

With that I will close and simply say how happy I am to be here and how happy I am that the organizers of this conference imagined that we had some role in this conversation.

Mike Watson, American Pilots Association

Ladies and gentlemen, I am pleased and honored to be with this panel of distinguished guests today. This has been a very productive gathering and hopefully it will lead to some conclusions in the near future that will assist us all.

As Jeff said, I'm President of the American Pilots Association, a national trade association of professional maritime pilots. Its membership is made up of 56 groups of state licensed pilots representing virtually all state licensed pilots in the country, as well as the three groups of U.S. registered pilots operating in the Great Lakes. APA members pilot over 95% of all the ocean-going vessels moving into United States waters. As I mentioned earlier, we are just as concerned with the security issue, if not more so, than the rest of the community and we have a very close relationship with the United States Coast Guard. In our capacity as licensed regulated state pilots, we are the eyes and ears for the Coast Guard in the defense of our country. We are proud of that role and we work very closely with the Coast Guard.

The role of the compulsory state pilot, navigating a ship in the United States pilotage waters, is a shared responsibility between the pilot and the master and bridge crew. The compulsory state pilot directs the navigation of the ship, subject to the master's overall command of the ship, and the ultimate responsibility for its safety. State licensed pilots are expected to act in the public interest and to maintain a professional judgment that is independent of any desires that are inconsistent with the needs of maritime safety. An APA member pilot is most often the only U.S. citizen aboard these ocean-going ships.

The pilot user needs are really the promise of navigation technologies. Implementation of navigation technologies holds great promise as an important piece of this solution to reaching our desired vision for the marine transportation system. The American Pilot Association continues to dedicate its resources and expertise to be a strong advocate for the application of technology such as GPS and the increased availability of differential global positioning systems (DGPS). Both are well-accepted navigation systems, but must be maintained and enhanced and not taken for granted. As commercial professional mariners, we were very pleased at the discontinuance of the government's policy of artificially degrading the accuracy of GPS signals.

The APA is extremely interested in working closely with the Coast Guard and other maritime industry representatives to meet our industry's increased security challenge in step with our collective vision of a safe and efficient marine transportation system.

The APA is fully aware and supportive of the Coast Guard's need for maritime domain awareness and has pledged its full support to the Coast Guard, from the captain of the port to headquarters levels.

Related to the implementation of specific navigation technology, the APA strongly supports moving ahead to AIS-based systems and not taking a step backwards to radar-based shoreside command and control vessel traffic systems. The APA was very satisfied with the work and direction of the national dialogue view on VTS and the recommendation to abandon the VTS

2000 type command and control system in favor of the more versatile and cost-effective AIS-based system. The APA looks forward to supporting the Coast Guard's effort to expedite the development and implementation of AIS in our country's ports. This desire has also been expressed by Admiral Pluta and Admiral Loy.

The challenges that face pilots today are manifest, and without question, will only intensify tomorrow. With the evolution in ship size, there is increasingly little margin for error. The stakes are high. The risks to life, commerce and the environment are real. Trade forecasts consistently predict the doubling of waterborne commerce within the next 15 years. Accelerating the development and delivery of these navigation technologies is critical to our ability to move our country's increasing waterborne commerce safely and efficiently.

We must note that there is danger in not recognizing the limitations of technology. While there is great promise to enhance navigation safety by the responsible implementation of technology, there is at the same time danger in not recognizing the limitations of technology. Maritime professionals are familiar with the phenomenon of "radar-assisted" collisions. The APA is working vigilantly to ensure that in addition to touting the capabilities, there is an equal understanding of the limitations of technology. The development and implementation of electronic charts is an example. There is a tremendous potential danger if mariners are unaware of the source data that is fueling their particular electronic chart system. It is helpful to know if you have a digitized version of your favorite seafood restaurant's menus or the real McCoy, the S-57 standard, NOAA-quality control data.

Often, technology applications that seem to present the greatest utility may also present the greatest potential danger. There is increasing interest in integrated electronic navigations systems. From the recreational boater's hand-held GPS receiver, plugged into a chart plotter, to the highly-touted integrated bridges of some recently commissioned ships, these integrated navigation systems provide increased functionality to the knowledgeable mariner. However, it is absolutely critical to navigation safety that mariners understand that simply because two or more navigation devices can be plugged together does not necessarily mean that the systems are compatible.

The APA is working closely, through its formal partnership with NOAA and the Coast Guard, to promote the development and implementation of promising navigation technologies, while keeping keenly aware of the inherent limitations of these emerging technologies. The key to the successful implementation of advanced navigation technologies is trained professional mariners. As a pilot and Chairman of the MTS National Advisory Council's Human Resources Subcommittee, I am particularly interested in the human element issues. While technology can provide critical decision support tools for the professional mariner, there can never be a substitute for the independent professional judgment of a pilot or master on the bridge of a ship.

With the challenges facing our U.S. marine transportation system, perhaps even more importantly with the recent realization of the vulnerability of our industry to acts of terrorism, this country needs to reconsider its national security and economic interests in a highly trained and loyal U.S. Merchant Marine. With an American Merchant Marine, we will have dedicated, licensed, American officers.

The APA feels that the ship should sail soon, closing the dialogue on the needs of MTS users. Preceding today's discussion and this conference questionnaire, we have participated in a year of listening sessions, the MTS national conference, Congressional hearings, and our awaiting the report of the Interagency Committee on the MTS needs assessment. The scope of MTS needs have been fairly well discussed. The wish list is in. The bigger public policy issues of who picks the priorities and who pays are now before us. The manner in which we proceed will likely determine the ultimate viability of the MTS initiative.

Again, I thank everyone very much for having me here. It has been a great opportunity to listen and learn and I wish everyone great success.

Chuck Carroll, National Association of Waterfront Employers

I have two initial points to make. First, I represent the National Association of Waterfront EmployERS. For 70 years, the group was called the National Association of Stevedores and they got tired of explaining (particularly to folks on the Hill) what the difference is between a stevedore and a longshoreman. As a result, they changed the name to the National Association of Waterfront Employers; however, everywhere you go, it seems to get abbreviated to employEES. Second point, for those of you who don't know, a stevedore is a company that employs longshoremen to load and unload ships. .

Much has already been about infrastructure problems and I won't go into any great detail in that area. The people I represent are petrified when it comes to looking at handling tomorrow's volume of trade -- the number of containers, the tonnage -- that will move on today's infrastructure. In that regard, I've been doing this on and off for 36 years and I'm in awe that a government agency, in this case the DOT and its constituent agencies and related agencies, is actually taking the initiative to solve a future problem today. In all my life, I have never experienced government actually being helpful. Perhaps this is because, for instance, I spent eight years trying to persuade the United States Department of Labor to change its computer system so that it could talk to the United States Department of Treasury and the Social Security Administration so they could compare databases. It was a very minor problem that took eight years. We don't have that luxury anymore, given September 11th.

I would like to address one additional thing relating to infrastructure, and that is related to September 11th. Right now, our industry is going to be under great demand, both statutory and regulatory, from the United States government to provide information such as documentation of what is in a container and many other things, such as personnel information and credentials. It is imperative, as a matter of technology and whatever research that goes into it, that the private sector computer databases and the government sector computer databases and the demand for this information be interchanged in a way that makes sense. We are doing a security bill on the Hill, a terrorism bill, and there is no doubt in my mind that some version is going to become public law and it is going to address this issue. But, unless great minds come together and study this, provide commonality or whatever else is needed, to ensure that when we in the private

sector are asked to provide information to the government, it is just not going down in the basement. If the information is just sitting there and is of no use to the government, then what the hell are we doing providing it?

I think it is absolutely critical that this problem be debated, brought to the forefront, and solutions implemented. Quite frankly, the government is going to have to take the initiative to do this. This is not something where you can just simply go to the private sector and ask them to figure out a way to do it. Government is going to have to step up to the plate with the private sector and develop whatever it takes to get the proper information to the government so that U.S. Customs or U.S. Coast Guard or whoever it is that is making common sense determinations to ensure the security of the ports, the security of our transportation system, and the security of the way this country works.

Jonathan Benner, INTERTANKO

Because this panel is called MTS user needs, it was very appealing to me and seemed to offer an opportunity to be just brazenly selfish and demanding and very parochial. As Jeff indicated, I'm here representing INTERTANKO, which is the International Association of Independent Tanker Owners. The organization consists of vessel owners from 45 countries, including the United States. The combined fleet represents about 2,000 tankers and we bring in more than two-thirds of all the oil that is imported into the United States. Our members see the United States marine transportation system every day and in a number of ways, and also see a lot of marine transportation systems in other countries, so there is a basis of comparison.

A few years ago, we began to look at systems external to the ship, as all of you are probably aware, because of a series of legislative demands that have been placed on tanker owners, particularly in this country in the wake of the *Exxon Valdez* accident. There has been a lot of attention paid to the ship itself and the systems aboard the ship. We had the sudden awareness, after spending about five years of trying to deal with all these requirements for new vessels and for training of crew and so forth, that we could have a superbly designed, meticulously maintained vessel operated by the very best officers and crews in the world, and we could still meet a Valdez-type catastrophic accident if some element of the marine transportation system outside our control raised up its ugly head and bit us when we were operating into this country. It can happen anywhere. It is not peculiar to the United States, but this is just the largest trading destination, but the largest oil trading destination in the world. We began to realize that the efforts we were making would be worthless if we did not spend some energy focusing on the system outside the ship.

This focus on our part was doubly motivated by the fact that no matter whose part of the system did come up and bite us, we still bore all the liability under U.S. law because we are the responsible parties, and it is not going to help us that something else failed in the system. We're still going to be the person in the dock. That led us to devote a tremendous amount of time looking at things in the United States because we trade all over the world. The unhappy reports

that we sometimes would get showed that while conditions in the United States weren't the worst in the world, they were often not the best. We, as a nation, could do better.

I am going to go through some wants and needs, some of which have begun to be addressed. The excuse I have for being this selfish about it is that I suspect that if we lined up the all the parochial needs of the panel or even of everyone in the room, put them side-by-side, we would see that they would begin to work together. There is an invisible hand that comes down and makes these all work together for a greater good, so we might as well just be honest about it.

First of all, while it may seem a small thing, it is important – we want charts and displays and navigation data that show both aids and hazards to navigation in some close approximation, hopefully very close to the physical reality. We don't always get that around here. There has been progress made in this, but I think you all know about problems that we have in the United States with outdated hydrographic information. We work very closely with Captain Watson's groups trying to advance the cause on that. All the technology in the world, and all the GPS data and AIS displays are worthless if you can't take our tremendous ability to identify a spot on the undifferentiated globe and tie it to a chart that tells you where you are in relation to a hazard or a land mass. This situation has to improve.

We want absolute assurance that all personnel in the various elements of the system can meet meaningful, verifiable levels of competence and are subject to periodic reviews for that competence, and that includes the tugs that handle our ships, the pilots that handle them, the line handlers, the longshoremen, not just the stevedores, inspectors of various types that come aboard the ships to check that standards are being met. All other users of the system, right down to an incompetent recreational boat owner can do a lot of damage to a commercial ship under certain circumstances. We want berths and terminals that are in all respects, both above and below the water, safe and user friendly. A big issue in the United States is that the size of the ships of all types, particularly tankers, has gotten to the point where some of the terminals that we are required to serve cannot handle the dimensions of the ship. That needs to change.

We want traffic management systems and information systems that enhance the vessel master's capability to deal with other vessels on the water and to work with pilots, and that do not distract. We want to see responsibility and accountability and coordination between the various government agencies that have responsibilities on the water. We want to avoid duplication. We want to avoid a haze forming around the dividing lines – who is in charge? Our general feeling is that it is better that there be one person obviously in charge rather than many. That is why a lot of our organization's efforts have been to try to clear out underbrush on state/federal issues so that we know exactly who is driving and who to go to when something goes wrong.

We want the US MTS to work harmoniously with standards and requirements in the rest of the world – not at odds with them. A lot of the things that have to be done to make this MTS the valuable system that we all hope it will be, is that it has to be interchangeable with other locations around the world. To the extent we have even a good idea that we impose unilaterally that is not consistent with what is being done according to best available technologies and practices in other countries – we have failed. If it is a good idea, we can sell it anywhere.

We want government agencies that have maritime responsibilities to be well-staffed and well-funded. We want the budget process to work in our favor.

To some extent, those are selfish needs and wants, but I think on another level they, in aggregate with all your other needs, are what we need to keep America in its place in the position in the world.

Years ago, at a going away party for a very good friend who worked at the French Embassy here, the then French Ambassador said the thing he liked about Philip was that he had a different attitude. I was thinking about this recently post-September 11th. I have gotten the feeling, as a lot of you have, that security issues and the immediate world situation just trivialize everything many of us have been trying to do for a long time. But, what the Ambassador said about Philip that when everybody was complaining about how horrible things were, Philip would come into his office with a smile on his face and say, “Aren’t we fortunate that we have so many interesting problems to solve today.” Maybe that is the way we go about these issues – we are fortunate that we have interesting and valuable problems to solve.

We are firmly convinced that anything that is good for vessel safety is also good for the environment. We are also convinced that things that are good for port security are good for safety in the environment and all of those things work well in the interests of the country as a whole.

Thank you.

Ed Welch, Passenger Vessel Association

I’m here in my capacity with the Passenger Vessel Association, the trade association that represents U.S. flag passenger vessels of all types. Our membership runs the gamut from cruise ships to gambling vessels, to dinner cruises and sightseeing ferries, and a variety of others. Jonathan quoted Adam Smith, and Leo referred to Woody Allen. I’ve been inspired by Joan Baez at Woodstock. I am going to paraphrase her with this lament of the passenger vessel industry – “Oh Lord, let us be part of the MTS – our friends all tote cargo – they don’t think of us. The number of passengers is only a guess – Oh Lord, let us be, part of the MTS.”

I would like to mention several things. First, we are part of the MTS and we appreciate the Secretary of Transportation including our national President as part of the MTS National Advisory Committee. We have been very active on the NAC. We have several goals both within MTS and within the maritime policy generally, and some of these relate to research and technology.

One thing we are very interested in is data collection. Our side of the industry, for a variety of reasons, has much poorer data than does the cargo side. One of our interests and recommendations is that the government and the industry expand its efforts to collect good data about domestic passenger vessel service. We were successful in the last TEA-21 authorization, a provision of which directed the Secretary of Transportation to create a national database about ferry transportation. Nobody had ever done that before, and there was really no comprehensive

understanding anywhere as to how many passengers ferries carry each year or how extensive a ferry system there is in the United States. The Secretary of Transportation did, in fact, carry that out through the auspices of the Volpe Center up in Cambridge, Massachusetts. They did a very comprehensive survey. They have put it on CD-ROM and they are making it available to people free, and it is the best source of data about ferry transportation that has ever been compiled. It shows that 1999 there were 224 ferry operators around the country, which carried more than 113 million passengers and more than 32 million vehicles – a not insubstantial amount. Particularly since many of these ferry operators were located in specific metropolitan areas, their influence on the overall transportation scheme was heightened in those particular areas.

We would like to see this initiative institutionalized and continued and not be a one-shot deal. Obviously, data is only as good as when it was most recently collected, and we are hoping that Congress and the administration will choose to have this database continually updated and perhaps refined a bit on a regular basis. We think with better data, both the government and the industry will be better able to figure out what is the appropriate role of domestic passenger vessels, ferries, within the MTS.

In terms of technology and research, of more and more importance to our segment of the industry are environmental issues. We are beginning to see in select geographic areas – San Francisco and elsewhere – the question come up about what is the impact of vessel emissions on air quality within a particular metropolitan region, and how do ferry emissions relate to emissions from other modes of transportation? There are no particularly good sources of information on that and we have been recommending that both government and private sources put research funding into quantifying what types of emissions ferries and passenger vessels have. There is also a need for some research into what are the best ways of improving that emission record. Would it be better to put your research dollars into clean diesel, so to speak, or to jump to a new technology whether it might be bio-fuels or even fuel cells or some type of liquid or natural gas? Vessel emissions are a coming thing for our industry and we see research potential there. A lesser, but still important research need on the environmental side for passenger vessels has to do with wake wash, particularly for faster ferries that go 25-30 knots or greater.

We would like to comment on what we recognize as a lot of enthusiasm for the AIS systems. While we do not want to throw a whole lot of cold water over the need for AIS systems, we want to point out that these things cost a lot of money. They may cost more money for a smaller passenger vessel operator relative to their operations than they do for an international oil tanker or some of the larger cargo vessels. In evaluating this particular technology, AIS, we want folks to consider not only does it work, but what is the best technology, and what is the most appropriate technology for a particular type of operator? It may not be one-size-fits-all.

The final point I will make is that as passenger vessel operators in major metropolitan areas and other marine areas, we too are coping with security issues after September 11th. September 11th in New York showed that ferries and domestic passenger vessels are an asset to a region. We estimated that close to 250,000 people were evacuated from lower Manhattan on September 11th by water. Most of those were by ferry vessels, but some by tugs and barges and other types of things. It wasn't just the ferry vessels from the domestic passenger industry. We had several dinner cruise operators which, while they did not evacuate passengers, basically brought their

vessels up to the shoreline in lower Manhattan and dedicated them for 2-4 weeks as rest and feeding stations for the recovery workers. I also want to mention the role of ferries in the Seattle earthquake a few years ago, and the Bay area earthquake ten years ago – ferries in metropolitan areas can be real emergency assets for a region.

We do have concerns about security issues. One of them relates to the fact that ferries depend on people moving on and off them very quickly. If they do not, you defeat the purpose of quick, efficient transportation. While it may be appropriate for passenger screening on large cruise ships that are out in the ocean for days at a time, the same type of screening may not be appropriate for a ferry run of 20-30 minutes. We would argue from a policy position that a ferry like that is more equivalent to an inner-city bus or a commuter train, and to what extent are we screening the passengers and their luggage on those types of operations?

Those are a few of the observations from the domestic passenger vessel perspective. Thank you very much.

Summary of Q&A Session

Q: I have a question for Mr. Benner of INTERTANKO. Over the summer, INTERTANKO issued a press release that said that the number of accidents involving tank vessels had gone down significantly over the past decade or more, and I don't doubt that. My question - is there are any one reason more than another for that decrease? Is it better technology for the pilots and the masters? Could it be better Coast Guard inspection or new regulations? Could you comment?

Benner – I was uncomfortable with the emphasis that Jeff gave to us being lawyers, but I guess in this case it helps because lawyers are always really sensitive to causation analysis. The fact of the matter is if you look at the data, whether it be by barrels spilled or by number of incidents, the general trend has been downward for more than 10 years, really going back into the early 80's. I don't think it is any one thing. I think it is a combination of international standards that kicked in during the early 80's worldwide. When you look at some of the big high-profile accidents like Valdez, they tend to be spikes in the trend lines.

I think international standards have improved. I think the sheer cost of vessels has caused people to be much more careful about how they maintain the vessels, what they are doing with them. I think improvements in crew standards and training have a role in this and I think improvements in national standards have had an effect on this.

But, I wish I had the statistics with me because they are very interesting. The fact of the matter is, we had many years of post-1985 period where the amount of oil spilled from tanker accidents is lower than the amount of oil that gets into the water from people putting crane case oil in a storm sewer. But, then we have had the high profile incidents which tend to drive the regulatory dynamics. Our position is the only good year is one where you have a no oil spill. We may never get there, but it is a goal that you have to keep striving for.

Q: One of the things that struck me over the last three days listening to the range of comments on how the transportation system could be improved based on things that are being undertaken like the issue of New York/New Jersey and what they are doing up there is really impressive to me. But, it is just emphasizing again the span of planners that are involved – the span of agencies; the span of the diversity of the industry – how much it will take in order to solve the projections that the MTS has laid out of what has to be solved to meet the 2020 demand. What I would like to hear are some comments from the panelists on how we're going to integrate the TEA-21 issues and SEA-21 issues so that we don't continue to stovepipe the issue, but recognize that TEA-21 has to also help solve a SEA-21 issue and vice versa.

Carroll: Let me take a stab at that. As the Chairman of the MTS NAC infrastructure team, which I would point out I got when I was out of the room, the team has made some policy recommendations and the full infrastructure MTS/NAC itself, there was a symposium two weeks ago looking at SEA-21 type issues, I think it is clear that we feel that if it is a highway intermodal connector, it should come out of TEA-21 or successful legislation and should not be left to a SEA-21 funding mechanism. If it is a waterside intermodal connector problem issue, then that should be funded out of a SEA-21 trust fund and in turn funded by whatever we agreed to fund it. Does that answer your question? In other words, highways are highways and we don't want to draw down a SEA-21 trust fund with highway projects, and we don't want to take highway money for SEA-21 projects.

Comment: In part, but I'm thinking even more than funding – how do you make sure that you, for instance, provide incentives so that the landside works with the marine side in order to say minimize air pollution – one example. There is so much inter-leaving that has to happen and it is more than just the funding. It is also the way you draft the legislation or you provide the incentives for these things to happen. So, it is broader than that – that is what I was after.

Carroll: There is no question and we recognize that the two statutory regimes have to be coordinated and that the policy-makers on a local level, not to mention on a federal level, have to keep both in mind. The goal here is to reduce port terminal type congestion in a manner that works. So, the people making the decisions on the projects should be able to mix and match. Maybe one project would involve some highway and some non-highway, and they could draw funding from both to achieve the project. But, there is a real concern that we not – a political concern as much as anything – it would be suicide for us to draw down the highway trust fund for non-highway projects. I think that is a non-starter.

Penne: I will just remark that it will be steady work, but, an extraordinarily complicated work. As I said, I was in Gulfport. We did a tour of the Port of Gulfport. Currently, they are putting tens of thousands of banana trucks onto city streets out of the Port of Gulfport that come out the gate, they cross some tracks that happens to be for railroad reasons, which are penetrable reasons. A track served by a rail line that, in fact, is not serving the port and then they go through the Gulfport/Biloxi area on city streets with at least 10 stop lights from the port gate to the interstate – 4.5 miles. It happens that the state of Mississippi, in cooperation with the port, have in the works a limited access highway that would serve as the connector between the ports and the interstate. This leaves the problem of the rail tracks. Given the configuration – the fact

that the water is two inches below the surface at that point, and other things like that, there should not be any possibilities or grade separations.

If you were dealing with, in this instance, the port authority that is a state agency, I believe three separate governmental jurisdictions that have some responsibility for the territory between the port and the interstate, private companies such as the railroads, etc. It is a very complicated business. At the federal level, I believe in the MTS world, there is 16-17 federal agencies of multiple Congressional jurisdictions. As I said at the outset, for state DOTs to take a strong interest in the water system, in most states it requires that the state take an interest in things that it is, in fact, not formally responsible for because it does not operate ports. The state is not a shipping company. The state is not a railroad company. So, the state DOT has to adopt a different view of its responsibility and the relationship between things that are not directly its responsibility and things that are in order to get into this business. So, it is going to be very hard work, but steady work.

High – Let me add two points. There is a fuzzy line between SEA-21 and TEA-21. I'm a member of that Blue Ribbon panel that Ed Mortimer talked about in relation to the study the Chamber is doing on ports and freight. The study is looking at how all this stuff relates to TEA-21. Gene, of course you know because you're a member of the steering committee, that the group that is probably going to promulgate any legislation for SEA-21 will come out of the Department of Transportation and they are also doing the TEA-21. So, you know we're going to have to look at how those things link up. It is a target-rich opportunity to try to sort all that stuff out. So, it is a good question and I'm not sure that anybody has really given you an answer yet.

Carroll – Just one further point, the infrastructure team principals, I believe, are public domain. If you give me your card, I would be more than happy to e-mail a copy to you. So, we do address the points in general as to coordination between the two. I guess it is not an approved item from the MTS NAC, but it is pending at the MTS NAC at this point.

Q: We heard a little bit earlier about diesel emissions from ferries. Those are things that concern the community. How do we try to get the science tailored so that the decision-makers can make decisions based upon the science, and can convince the communities that are being impacted by this MTS process. The folks who live in Oakland, LA, or New York, who are being impacted by these trucks and the by the diesel emissions and by the congestion, are starting to say, we've had enough and we don't believe your science yet.

Getting back to the zero tolerance in the social conscience, we need to make sure that the scientists, while they are doing great science, are also able to answer the questions for decision-makers and for the general public, and how do we go about doing that?

Comment: That is a very good question and I think the answer to it is a nugget that is applicable to all this stuff that we've been talking about, and it is germane or core to the success of the whole MTS initiative, and that is establishing credibility. We, as an MTS community, have to establish credentials or credibility with the decision-makers. I think there are lots of ways of doing that. One of the biggest is awareness. We have to let people know that we're there; we're serious about what we're doing; and that we can generate the kind of teamwork that is necessary

to first identify the questions, and then come up with appropriate answers that are sensitive to everyone's needs. There was a wonderful opportunity during the summer when there was an MTS fair held up on Capitol Hill. We have to be proactive, as a community to identify what are the real problems and then we have to go out and enlist into our effort those that represent the people that were impacted.

We've started by trying to bring into the safety and environmental protection subcommittees on both the ICMTS and the MTSNAC, representatives from the action groups that represent the environmentalists. I think once we have won their confidence, and we can get their support, then we can begin to make progress at coming up with technically supportable but still socially acceptable answers to those kinds of questions. That is the best I can say. We've got to build a team. That is really the core of the whole thing.

Benner: I think the major problem is that the science in many of the areas that people perceive to be problems is very deficient right now. I can give you trivial examples and I can give you big examples. Ed mentioned air emissions – I don't think the science is very good on that right now and I think we are contemplating doing a lot of things in that area that may not be consistent with what science will eventually reveal as optimal. Ballast water and non-indigenous species transfer – in ballast water I think the science is awful. The science is bad on the treatment side for that. I think we are willy-nilly down a trail where we focused exclusively on trying to do something on the vessel about that rather than trying to approach treatment in ways that might be more efficient off the vessel.

To give the trivial example, it is my favorite one of the moment – that the Oil Pollution Act now requires tank level monitoring devices and the Coast Guard issued a standard for those. In other words, the idea is to detect slow leaks in vessels short of catastrophic leaks so you know if you are trailing little amounts of oil. The problem is the law requires it, but science and technology haven't made any yet. You are required by law to have them, and they don't exist.

All this leads me to this point – that the MTS is the source of as many solutions to environmental problems in these communities as it is the problem itself. Maybe it is an attitudinal thing, but we really have to work on. A lot of environmental issues can be ameliorated by intelligent use of the MTS. We have to get that point out. It isn't always just seeing the elements of the MTS causing the environmental problems.

Comment: There is a great concern about this. I think it was reflected in the original formation of this MTS National Advisory Council. I don't have a list of all the members with me today, but there is strong environmental representation on that committee. There is representation of local and state governments and jurisdictions on that committee. There is a lot of dialogue going on within the MTSNAC group itself before a final presentation will be made to Secretary Minetta whereby we hope there will be a consensus of opinion for these solutions that address them. That is a big piece of cake to cut, but the formation of the committee was intended to include representatives of various groups and spokespersons for these groups. We all have a difference of opinion on the committee as to how certain issues should be approached and solved. Ultimately, it will be open for debate with the decision-makers by those other than you see sitting here or the royal 30.

Q: I would like to offer a different perspective for a question. Everyone in the room and a whole lot of other people have been involved for a couple years now in a seemingly endless series of committee meetings and advisory committee sessions, both in private sector and at the inter-agency level. Most of our focus has been on some kind of legislation, SEA-21 or whatever you care to call it, which is a good idea. We need to think about that and that is something, in the best of all worlds, will take at least another year at the second session of Congress, and quite likely another two or three years to get from conception to reality. I would like the panelists thoughts, any of you, on things that might be worthwhile from the users' community perspective, that we can do now with the existing authority and existing funds simply by getting some agencies together to work smart. I'd appreciate your thoughts either now or through the Advisory Committee structure back to the agencies. I just have this gut feeling that there are some no-brainers out there that we could go ahead and do something instead of just pushing paper and having meetings.

Penne: I will give a quick example from my realm, which may differ greatly from others. It rises out of basically the same reaction. Having gone to six months of meetings about freight transportation and discovery that at every one of them, people lament the fact that the connectors do not get done, the last mile that connects ports, but also truck and rail terminals to major highways. I finally said to the head of the Association of Metropolitan Planning Organizations, and usually the finger is pointed at them as being the obstacle to doing these things – I said, I just can't go to another one of these meetings. Why don't we do something? Why don't we pick out between AMPO and AASHTO, with the involvement of the Federal Highway Administration, ten of these things that look like they are doable and then give it some special push and do them. Of course, I went off and forgot about this and did other things. I got an e-mail this morning, coincidentally, from this guy and he has sent out a query to his membership saying who out there has a connector that they think could be done but for some reason isn't being done, and if we gave it some special effort. I think there is a real possibility. Rather than making it into a TEA-21 reauthorization issue, we have 600 connectors and we're not doing them. Why don't we make it 590 connectors and do 10 of them instead of just complaining about it.

High: I have a similar question because we want to get to some specifics. I am going to put every member of the panel on the spot here – chairman's priority. In 25 words or less, be very specific – if you were king for a day, what piece of research or data or technology should we go after to apply to deal with the needs that you've expressed to this panel? This is a research and technology conference, after all. If you were going to be king, what would we do on research, technology or data?

Ashe: I'll take the first shot because it is easy to use up somebody else's opportunity. I think one of the biggest things that we haven't gotten our arms around is the realization that the marine transportation system is a system. It is very easy to fall into that trap because we haven't considered ourselves a system for so many years. We have all built our little, parochial world, and doing our job well, but doing it parochially and independently. I think one of the first research projects which is really a social research project is to develop a model of the marine transportation system that all of us can buy into, and then do something that I was alluding to there – it equates to a risk analysis – look at where the biggest payoffs are within the system.

Where can, for the least amount of money, can we make the biggest impact and prioritize the things that we should go about attacking?

You are going to gore somebody's ox – there is no question about it. But, we have to be grown-ups about it and realize that there are other things out there that are more important than the little piece of the world that we deal in – and go after those. I think the things that were mentioned here about going after the low-hanging fruit, you will find it in that group, low-hanging fruit that you can just pluck. Once we start to build successes, then we will have the credibility that we need to keep going.

Carroll: I offer two things in the area of personnel security. I don't mean this just for maritime workers because I think it should be done for all transportation workers. The first is a universal smart card, identifying in a foolproof manner, the card holder and what the card holder is allowed to do. For instance, if you're a longshoreman in the Port of New York, you're obviously allowed to get on various terminals in New York. But, they can't go to inland terminals in Kansas City or terminals on the West Coast. I think this is where we are going security-wise, but to get there, we have to have one card, one technology issued by whomever. But, it has to be common and it obviously has to work.

Secondly, in the area of documentation and data interchange between the carriers or the shippers or the shippers and the carriers and the government – they all need to have a common technology program so that when Customs gets the information, the Customs agents have a selectable database that enables them to easily and readily identify the bad actor when he/she shows up. Having data from carrier A and carrier B and carrier C in different forms, whatever, to the government, I think does not help the agents on the ground do their job very well. To the extent that there is a commonality – I'm not an IT person, so I'm probably not expressing it very well – but again as I said earlier, I think the government has to take the lead here in making certain that what is given to them is in a useable form that can help them identify the bad guys. I think a lot of brainpower, not to mention time and effort, has to be put into this. It is going to take the government and the private sector to do it, but I think the government, on both of these – the smart card and for personnel identification and documentation – I think the government has to take the lead on it.

Lehman: Increase funding. The Army Corps of Engineers has a lot of projects that have been approved that would really sustain the marine transportation system. Seek funding for the authorized projects. That goes as well for NOAA, MARAD and everybody else. That is the key – if we can make Congress aware of the marine transportation system as a total system, then the funding projects would fit in the authorizations and I would strongly urge to push for the funding.

Holliday: I've got to follow-up on that one – an investment optimization model is what we really need, and that is not an investment in money. That is an investment in the environment and in our social impacts that would beget less congestion on the highways, improved rapid transit, and improved economic movement of commodities in this country.

Penne: I would associate myself with Glenn's comment and perhaps expanding it a bit, incorporate data analysis on freight movement into transportation planning and implementation. More generally, including the MTS, because it is not simply in connection with the MTS that freight is poorly handled in thinking about what to do with transportation systems.

Benner: To keep it in the R&D area, I think I would pick up a piece from Chuck and a piece from Mike Watson. But, I would like to see people boring ahead as hard as they can on this data integration using AIS, both for navigational purposes and for security purposes. I think we are finding the transponder technology now gives us a lot of capability to track cargoes, to deal with a lot of issues that have been discussed throughout this conference. I think there are bit payoffs there in a short period of time. We are there really. It is just a matter of pulling that together.

Welch: With a directive from the Secretary of Transportation and a few hundred thousand dollars a year, you could institutionalize, refine and update this national ferry-based database every two years.

High – Thank you. We have exhausted our time here and probably exhausted ourselves. What I would like to do is declare victory. Thank our panel one more time for a wonderful job. Thank you very much.

Parker: I have two things to say. The first thing is to tell you what happens next. You throw a conference and even when it goes off well and there is lots of good discussion and stuff, you don't just forget about it after it is done. You do the usual things which means proceedings, and in that case that will be published hard-copy proceedings as well as everything going onto the website.

As was said earlier, the first cut at putting some of the needs of the MTS together was the September 1999 report to Congress and other things have happened since then. I think someone said we already have a list, and now we just have to prioritize and make it happen. What we are all looking toward is eventually a SEA-21 or something that encompasses portions of what we want a SEA-21 to be. All that has gone on at this conference and some of the things that MTSNAC has asked the ICMTS to do as well as their own meetings, is to get closer to some specifics that we could get into a SEA-21. We hope this conference will contribute to that.

In addition, we will be doing things on the website to improve the R&T linkages so you can really find out more about who is doing what and that should be advantageous to moving along. I know from having talked to people just in associating with each other, some things have happened on the side.

The second thing I wanted to do was just to say some quick thank-yous for the people who made this conference possible. All the speakers certainly, especially ones who traveled a far distance – and especially some of the session organizers. I also want to thank members of the R&T Subcommittee, who took the lead, but had help from MTSNAC counterparts and lots of other people giving advice. I also want to thank the TRB and Marine Board for essentially handling the logistics of getting the NAS facilities and making it so easy for us. Last but certainly not least, I want to thank the U.S. Army Corps of Engineers, who hosted this event.

I also want to thank everybody for coming. The next conference will be in two years. By then, maybe we will have lots of progress and we can go back to having just “techy” sessions and not have to deal with the political stuff.

High: I have three points that I’ve heard throughout the conference. First, we had a lot of sessions on security and the theme has to be that not only must there be a balance between security and efficiency of the system, but there has to be a synergy. We can use security and the environment we’re in today to actually move things along. Things that help security also help safety and so forth. We can work these things together and that is what we have to do.

Second, this is a system that we’re talking about – the marine transportation system. We are all in this together. We have been working together. This conference is a good example of that. We’ve been doing this for ten years now – every two years. This is the sixth one. It started out as a waterways management and interagency activity and then we expanded. We have been working this together and it has to be that way. We have to solve this all together. It really is a system – let’s work it together.

Third, there is some low-hanging fruit out there. You have heard some of the ideas. Let’s go out and make some of that happen. Let’s take some things and make it happen.

Those are my three points.

Bruce did a lot of this, pulling together a lot of the teams and he’s thanked a lot of people, but he deserves thanks and a big round of applause. The National Academy of Sciences, the TRB, the Marine Board – thank you very much. The Corps of Engineers, of course, will put out these proceedings. I would like to thank Admiral Loy, our keynote speaker. He did a great job of kicking off this event. My thanks also to the challenge speakers, the panelists, and most of all the participants, especially those of you who were able to stay until the end.

I would now like to declare victory and close this out. The sponsor for the next one is probably the Coast Guard and we will be happy to do this. Thank you very much for coming.